The Afghanistan Agrometeorological Monthly Bulletin

Issue No. 34 December 2007

The Agromet Project of USGS, supported by the US Agency for International Development (USAID), is working togther with the Ministry of Agriculture and irrigation and the Afghan Meteorological Authority (AMA) of Ministry of Transport (MoT).

Agromet Network

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Summary

Comparison of rainfall data for the month of December 2007 with the same month in 2006 shows decrease of rainfall in most parts of the country.

Zaranj with 25 ° C was the warmest spot of the country. During the month of December 2007.

Cereal Crops Phenological Stages

Central Region:

In most parts of this region as in, Paghman and Karizmir Districts of Kabul Province, Dara and Dashtak Districts of Panjsher Province, Ghorband District and Charikar central Parwan Province Wheat is in emergence stage. In Chak and Jaghatu Districts of Wardak Province, Mahmud Raqi center of Kapisa Province wheat is passing its dormancy stage.

East Central Region:

Reports are indicating from Panjab, Yakawlang Districts and center of Bamyan Province that winter wheat is in emergence stage.

North Eastern Region:

In most parts of this region wheat is in emergence stage as in Imam Sahib, Chahar Dara, Aqtipa and Qali-I-Zal Districts and central Kunduz Province, Bangi District and central Takhar Province, Baghlan and Badakhshan Provinces.

Eastern Region:

In most parts of this region as Mihterlam center of Laghman Province, Asmar District and Asadabad center of Kunar Province, Agam and Ghaziabad of Nangarhar Province reports are showing that wheat is in emergence and vegetative stages.

South Eastern Region:

In most parts of this region as Tera and Gardez Districts of Paktya Province, Urgun and Khairkot Districts and Sharana central Paktika Province and Khost Province that wheat is in emergence stage.

In Muqur and Sardy Districts of Ghazni Province the wheat is in Dormancy stage.

Southern Region:

Reports are indicating from Urozgan, Nimroz, Zabul, Kandahar and Hilmand Provinces that wheat is in emergence stage.

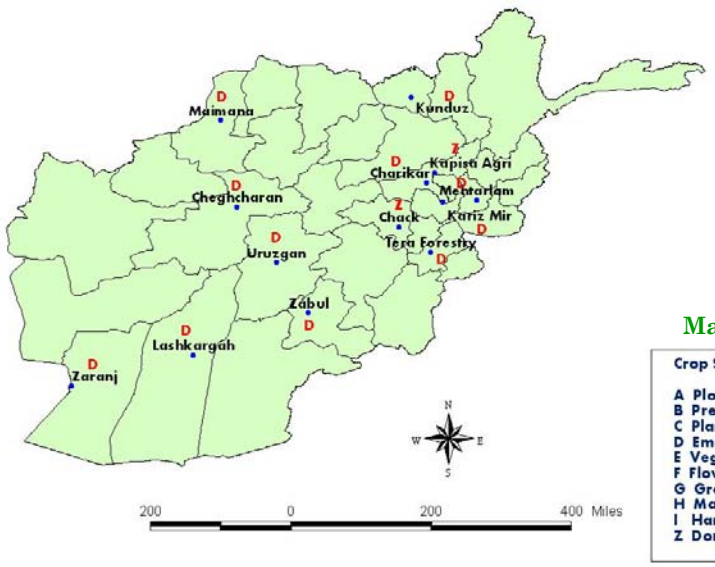
Northern Region:

Reports from Faryab, Shibirghan central Jawzjan, Saripul Provinces, Dehdadi and Nahri Shahi Districts of Balkh Province are indicating that wheat is in emergence stage.

Western Region:

Reports are indicating from Farah and Ghor Provinces, Muqur District and Qala-I-Naw central Badghis Province and Shindand District of Hirat Province that wheat is in emergence stage.

Cereal Crops Stages Dec — 2007



Map 1

Rainfall Situation

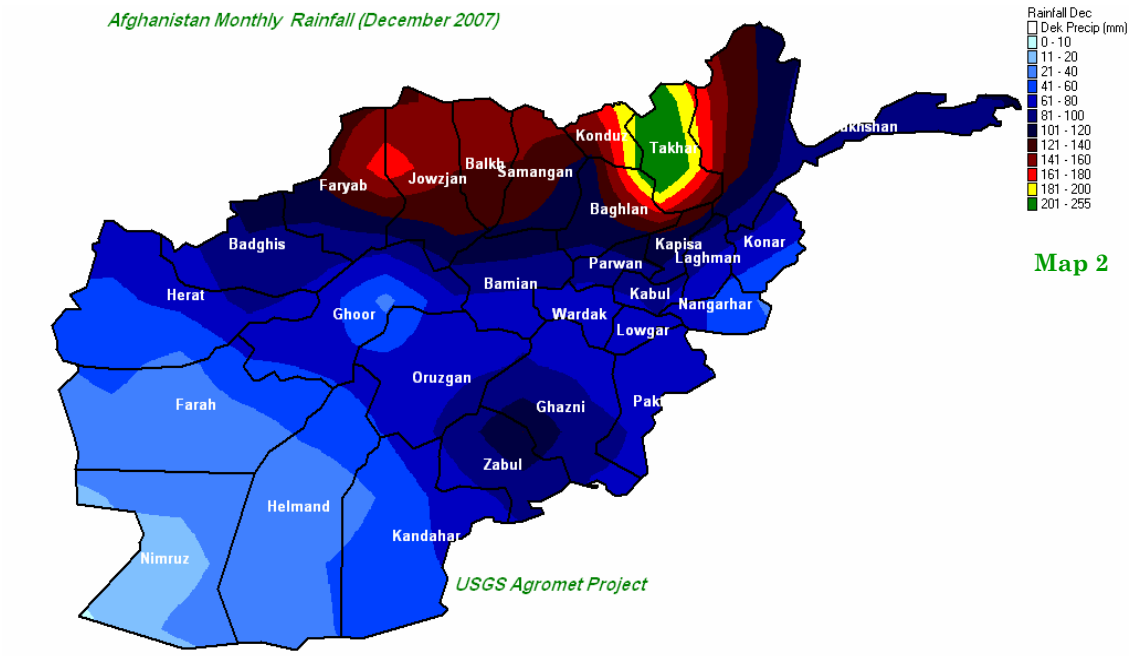
In general rainfall for the month of December 2007 had decrease compared to the same month in 2006.

Comparison of rainfall data for the month of December 2007 with the same month in 2006 (chart 1) shows decrease of rainfall in most parts of the country. Generally for the month of December 2007 the amount of rainfall was lower compared to the same month of last year and inadequate of rainfall could not cover the deficit of rainfall. Significant decrease of rainfall during the month of October and November increased deficit of rainfall and more rainfall is needed to cover water recourses for the upcoming agricultural season. The percentage +/- of rainfall is as follow:

In Baghlan 41 %, Darul Aman -71 %, Faiz Abad -57 %, Farah - 100 %, Gardiz 52 %, Ghazni -92 %, Ghaziabad - 100 %, Heart – 100 %, Jabul Seraj %, Jalalabad -93 %, Kabul -85 %, Kandahar -98 %, Kariz Mir -82 %, Kunduz 89 %, Logar - %, Maimana -20 %, Mazar 87 %, Paghman - 70 %, Sheberghan 72 %, Sarobi - 78 %,Sari Pul, 122 %, Taluqn 81 %.

Comparison of rainfall data for the month of December 2007 with the same month of long term average (chart 2) shows a decrease of rainfall during the month of December 2007 over the same month of long term average. However in some stations rainfall had small increase but totally amount of rainfall was lower for the month of December 2007 compared to the same month of long term average. The percentage +/- of rainfall is as follow:

In Baghlan 57 %, Darul Aman - 7 %, Faiz Abad - 63 %, Farah –100 %, Gardiz 218 %, Ghazni - 55 %, Ghaziabad - 100%, Heart – 100 %, , Jabul Seraj - 100 %, Jalalabad - 88 %, Kabul - 16 %, Kandahar - 58 %, Kariz Mir - 20 %, Kunduz - 92 %, Logar - 100 %, Maimana 19 %, Mazar 194 %, Paghman - 21 %, Sheberghan 57 %, Sarobi - 53 %, Sari Pul 27 %, Taluqan 42 %.



Map 2

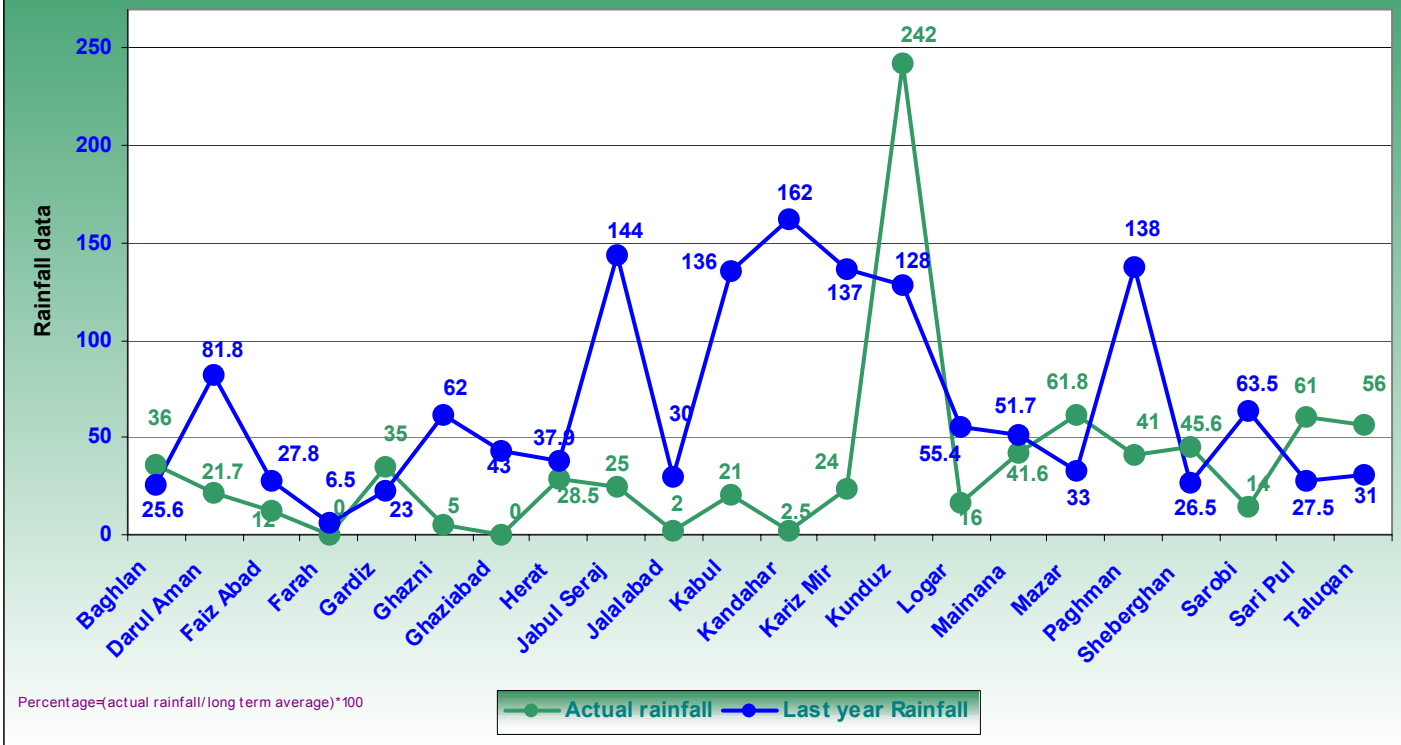
Distribution of rain was variable during the month of December 2007 in different regions of the country. As map(2) shows most amount of rainfall occurred in the Northeastern region and some parts of the Northern region

Some parts of the Southeastern regions also had good rainfall, and the Southern and some parts of the Western regions experienced less amount of rainfall for the month of December 2007.

Rainfall Graphs for the Month of December 2007

Comparison of Actual and Last Year Rainfall (December 2007)

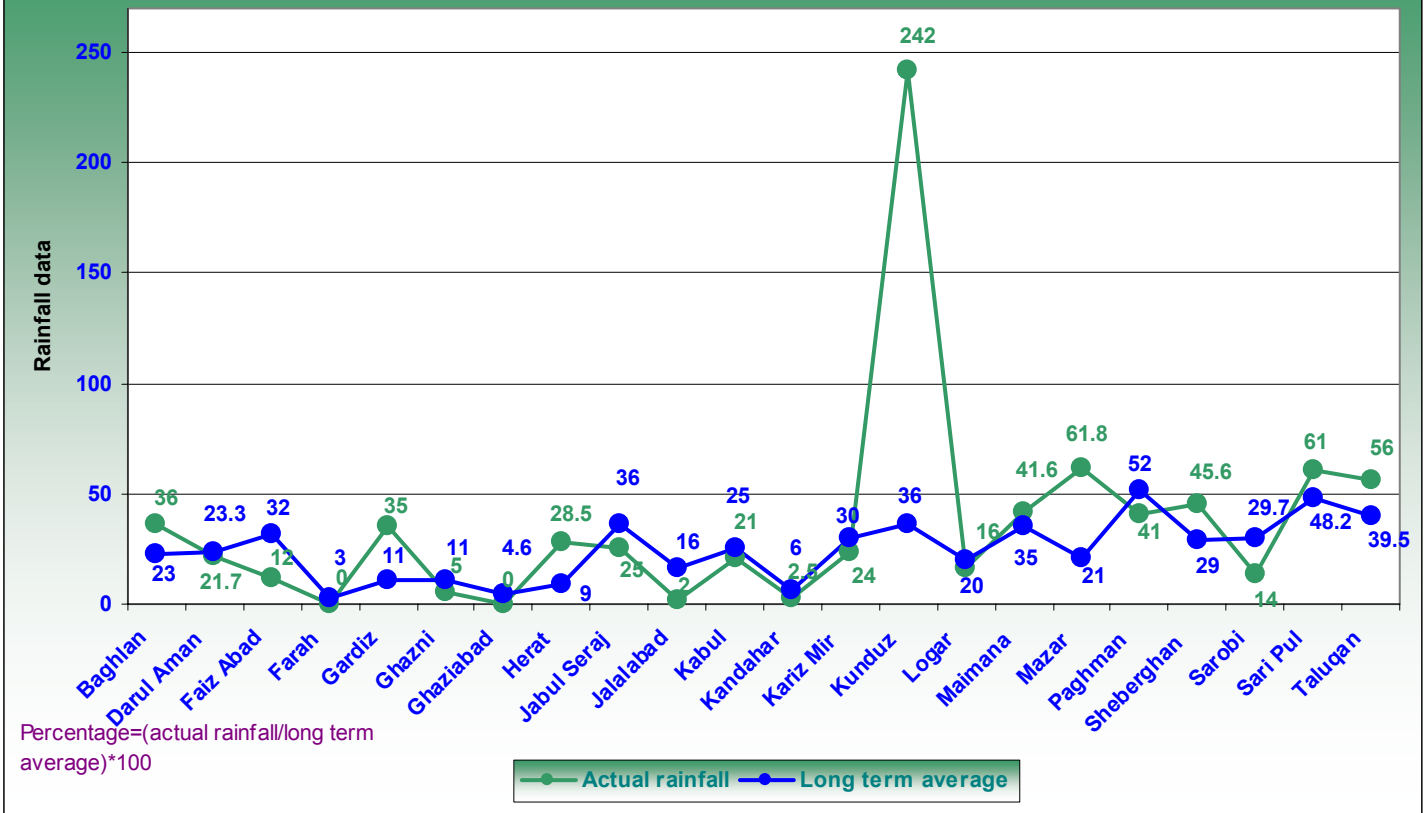
Chart 1



Percentage=(actual rainfall/long term average)*100

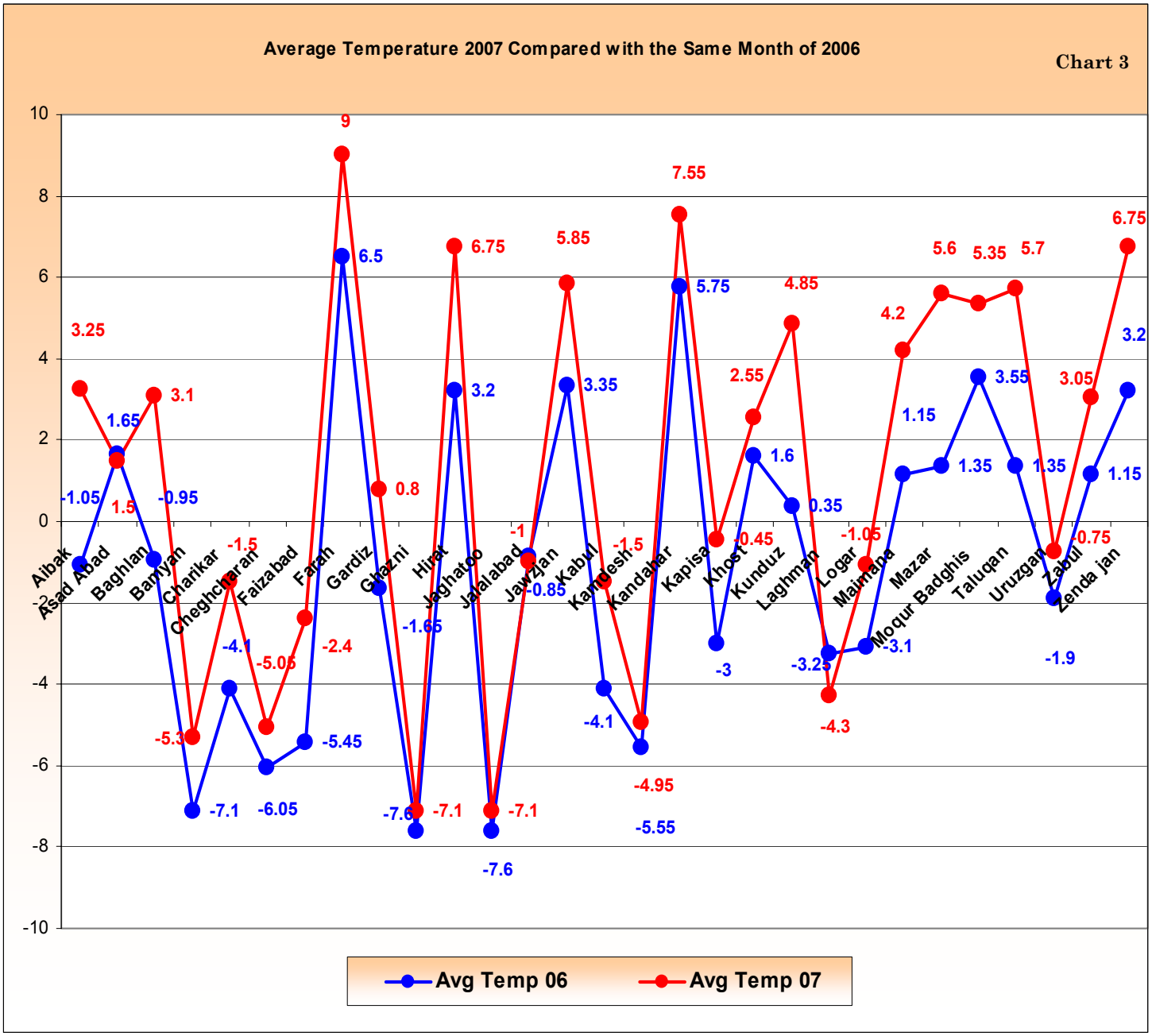
Comparison of actual and long term average accumulated data (December 2007)

Chart 2



Percentage=(actual rainfall/long term average)*100

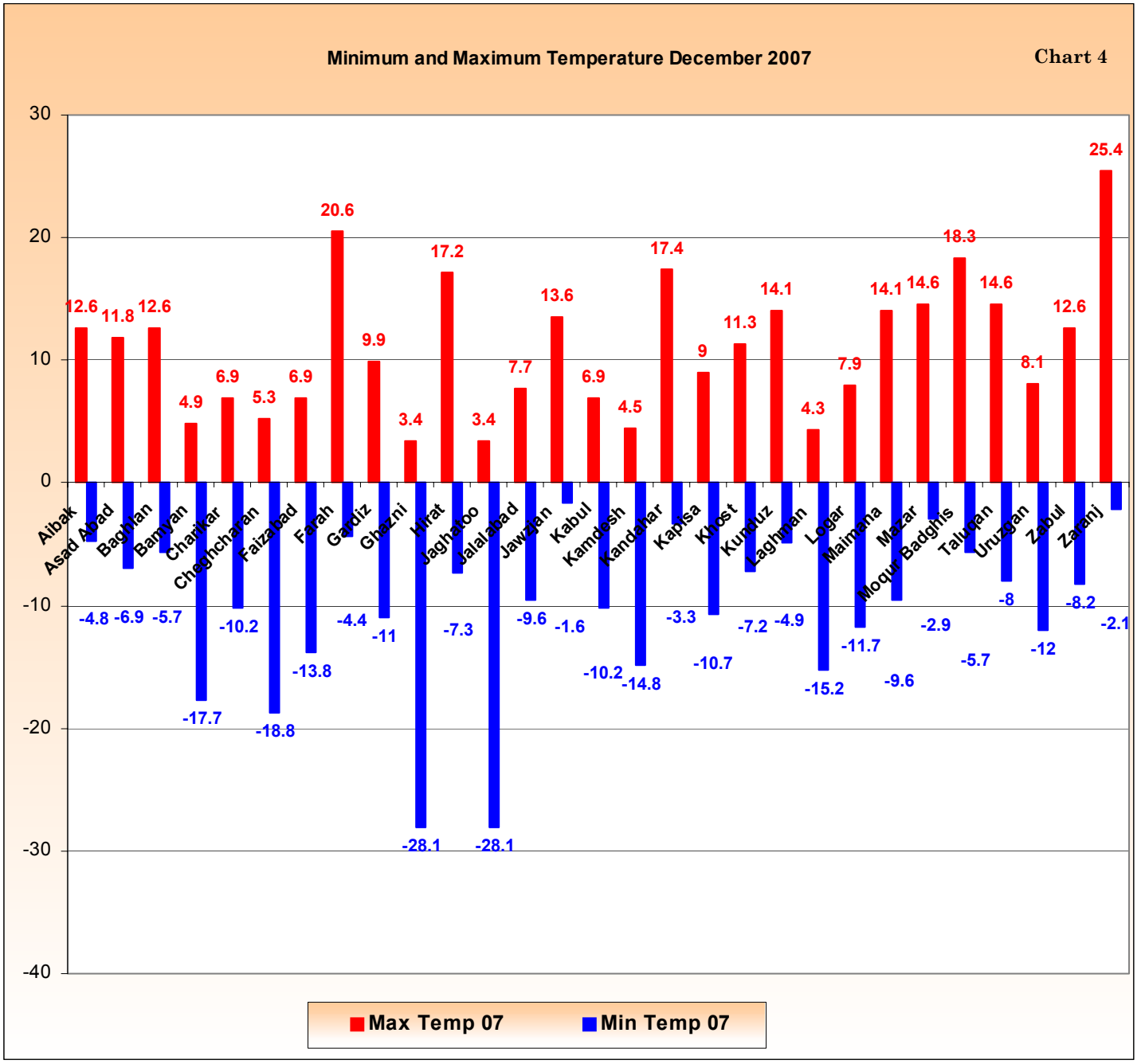
Average Temperature for the Month of December 2007



Comparison of temperature values show increase of temperature during the month of December 2007 over the same month in 2006.

Temperature for the month of December 2007 was higher compared to the same month in 2006 all over the country. Comparison of temperature data for the month of December 2007 with same month of last year (chart 3) shows an increase of temperature during the month of December 2007 over the same month in 2006 which the Temperature 1° C to 4° C was higher compared to the same month of last year. It is mentioned that higher temperature cased to prevent normal occurrence of rainfall during the month of December.

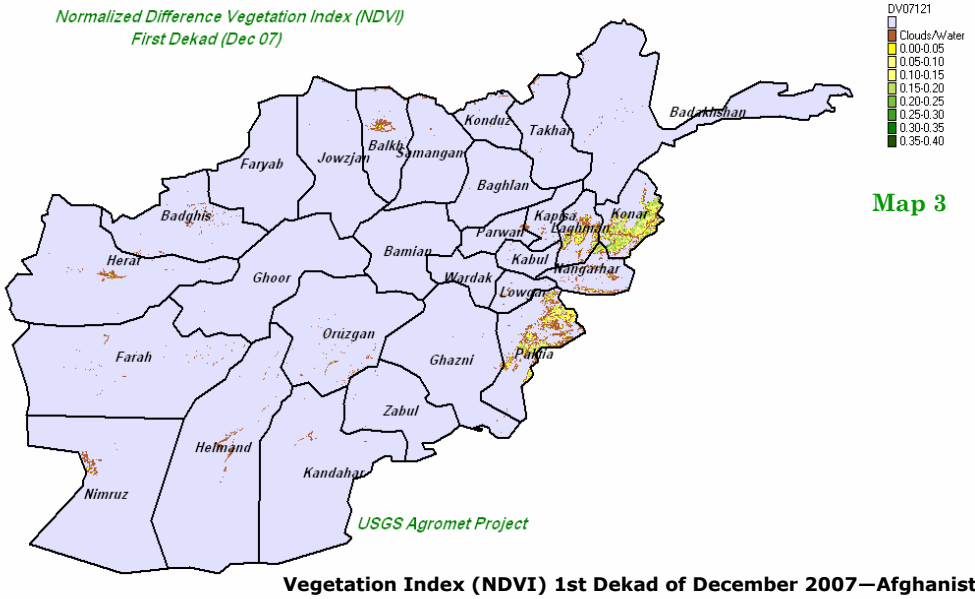
Temperature for the Month of December 2007



Zaranj center of Nimroz Province with 25 ° C was the warmest area in the country

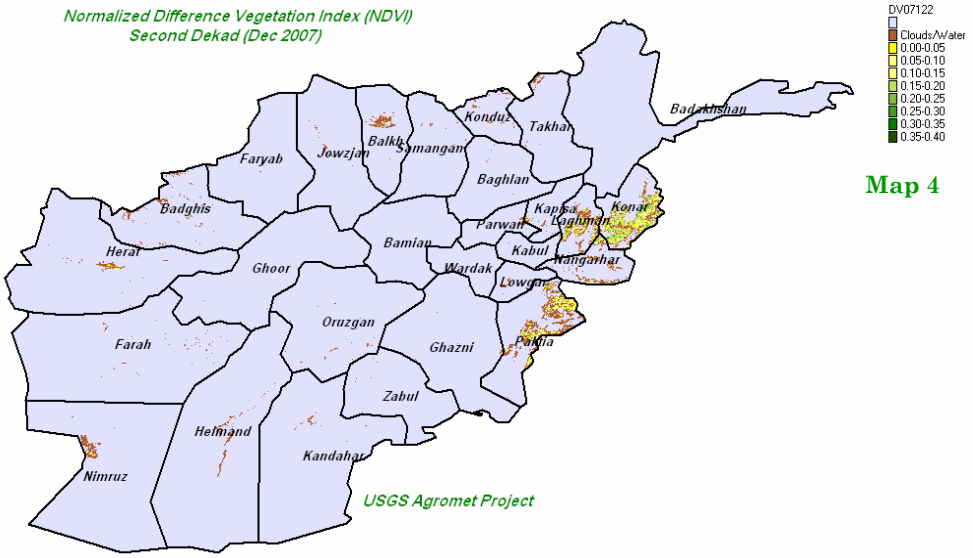
Chart (4) shows maximum and minimum temperature for the month of December 2007, as chart shows the minimum temperature recorded at freezing point all over the country. Gazni and Jaghatoo with – 28.1° C experienced extreme cold during the month of December and Zaranj with 25 ° C was the warmest spot of the country.

Normalized Difference Vegetation Index (NDVI) (December 2007)



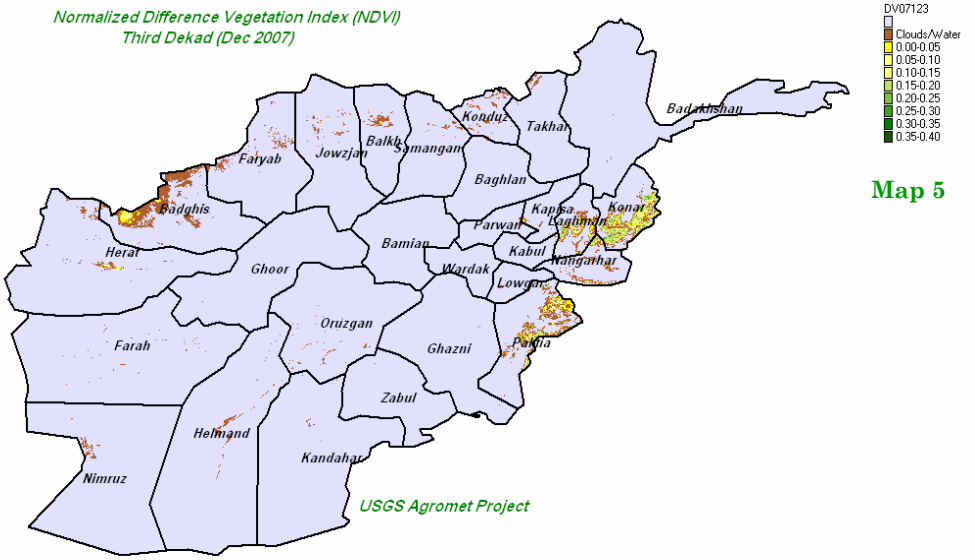
Map 3

Vegetation Index (NDVI) 1st Dekad of December 2007—Afghanistan



Map 4

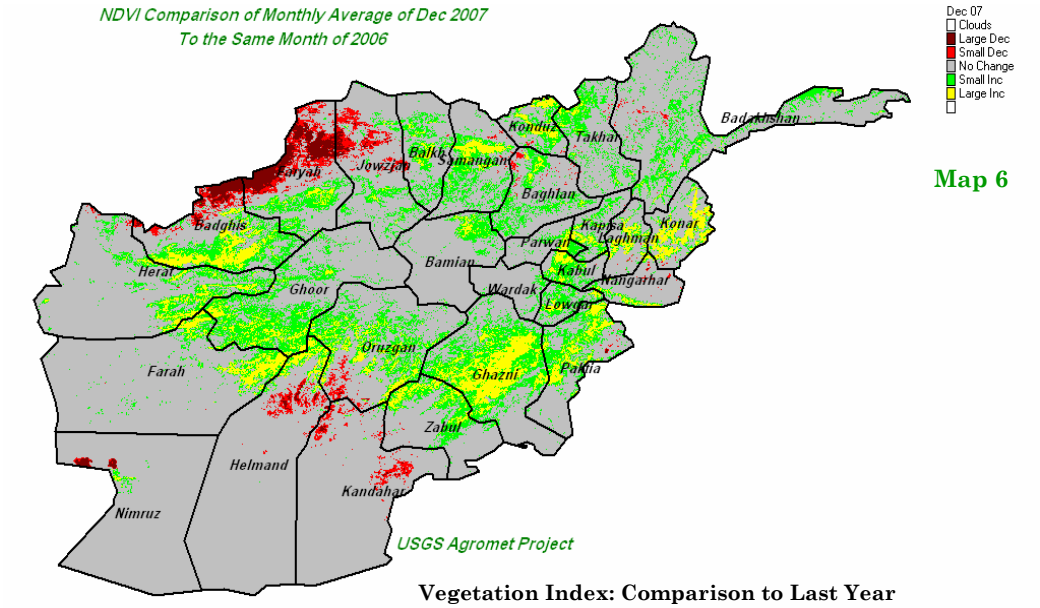
Vegetation Index (NDVI) 2nd Dekad of December 2007—Afghanistan



Map 5

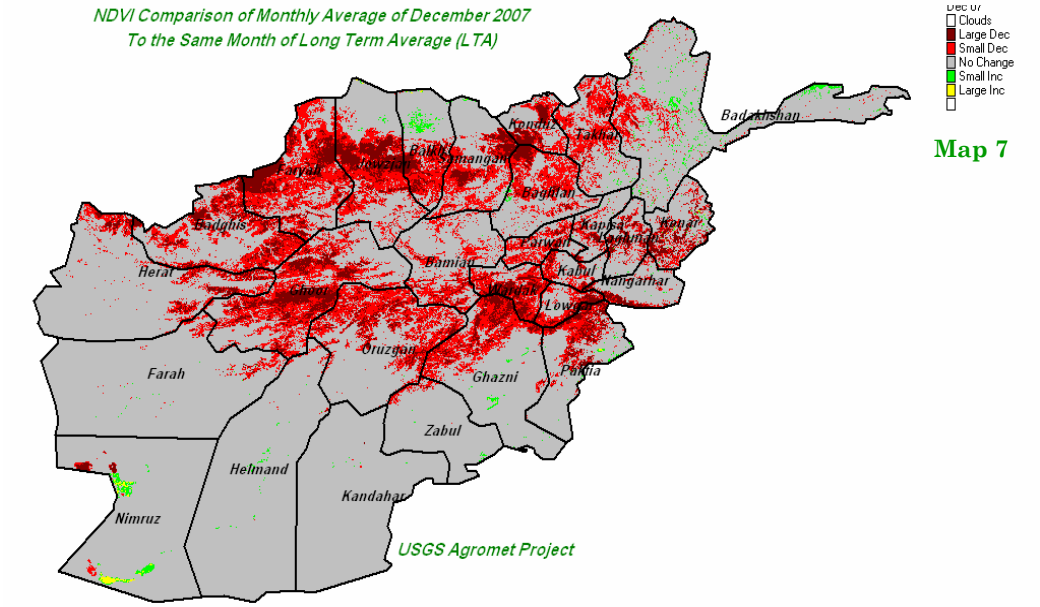
Vegetation Index (NDVI) 3rd Dekad of December 2007—Afghanistan

Comparison of NDVI December 2007



Map 6

Vegetation Index: Comparison to Last Year



Map 7

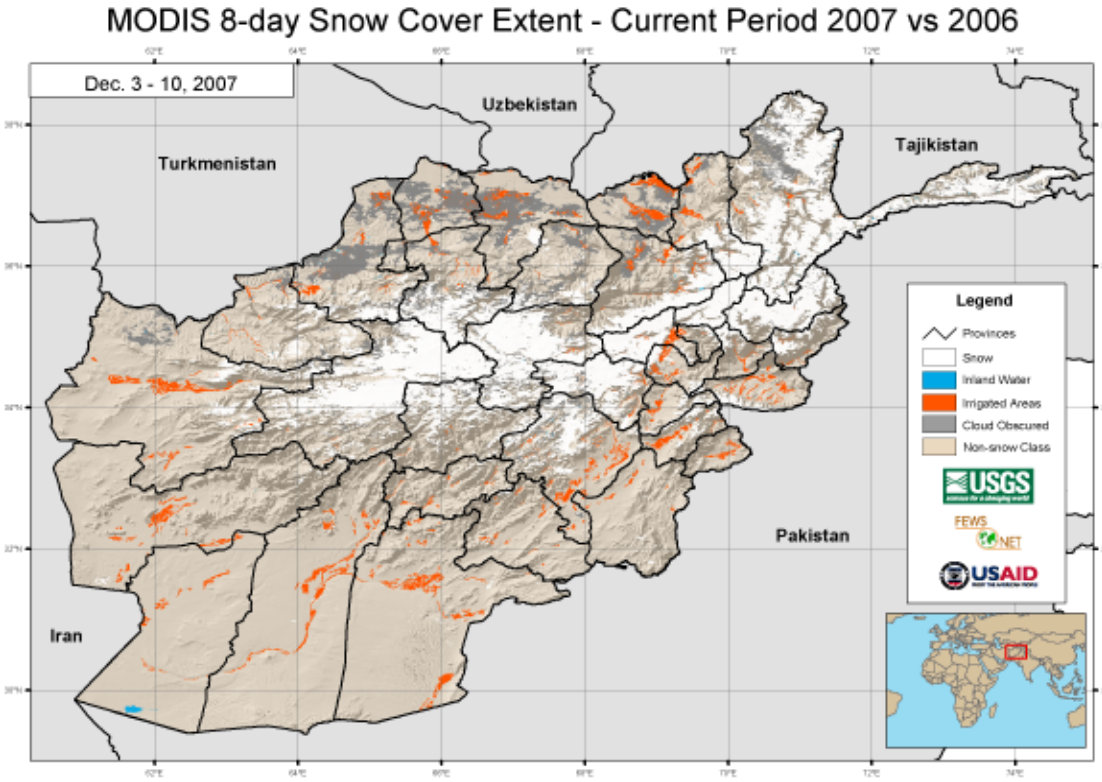
Vegetation Index: Comparison to Long Term Average

NDVI: December 2007

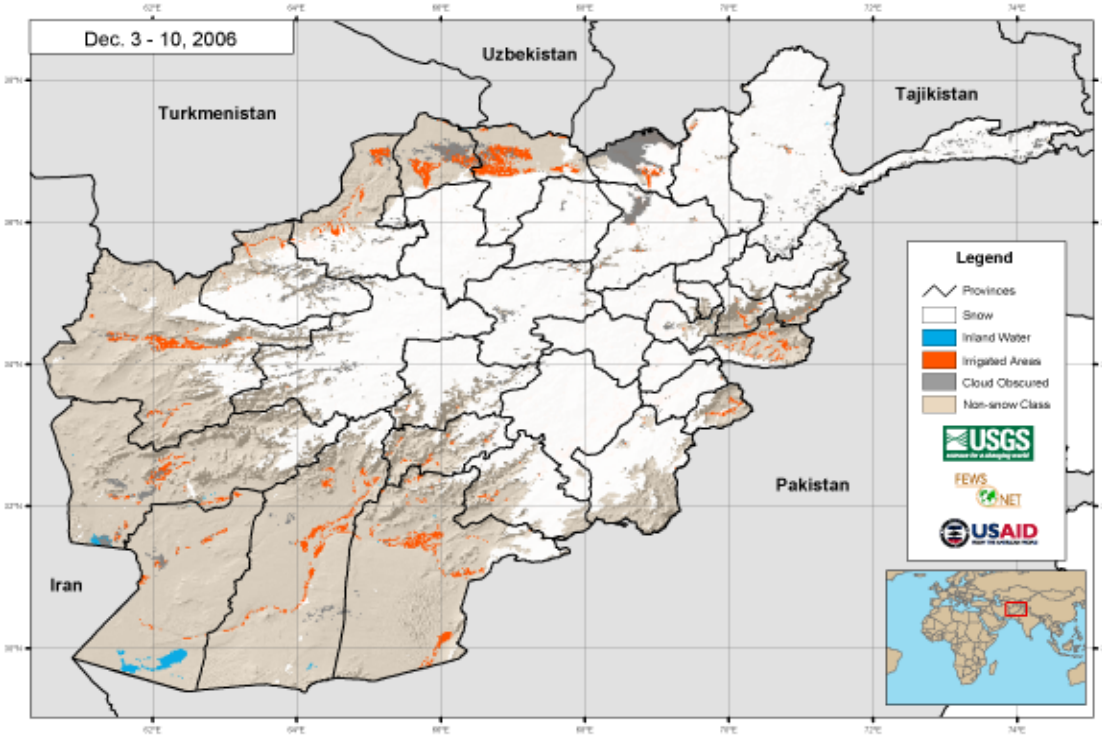
Comparison of monthly average of NDVI for the month of December 2007 with the same month in 2006 (Map 6) shows large increase of NDVI in some parts of the Southeastern region, some parts in the Eastern region and limited areas in the Western region, small increase occurred in NDVI value in most parts of the Northern regions, and limited areas in the Northeastern region during the month of December 2007 compared to the same month in 2006. Large decrease in NDVI value occurred in limited areas in the Northwestern region. There is no change of NDVI in the remaining regions of the country during the month of December 2007 over the same month in 2006.

Comparison of monthly average of NDVI for the month of December 2007 with the same month of long term average (Map 7) shows small decrease of NDVI in most parts of the Northern region, Northwestern, Western mountainous areas, Central Highlands, Capital regions, some parts of the Southeastern region and some parts of the eastern regions during the month of December 2007 compared to the same month of long term average. no change in NDVI value has been occurred in the Southern regions and most parts of the Western region during the month of December 2007 over the same month of long term average.

Comparison of Snow Extent



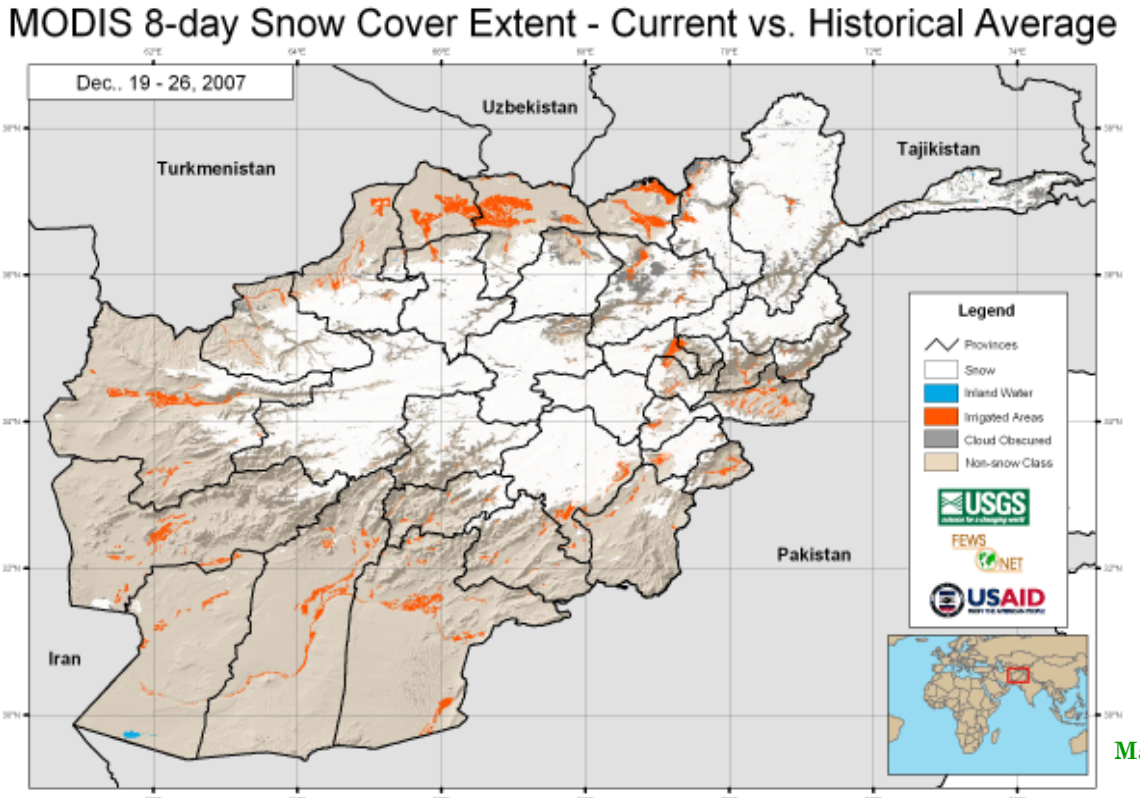
Map 8



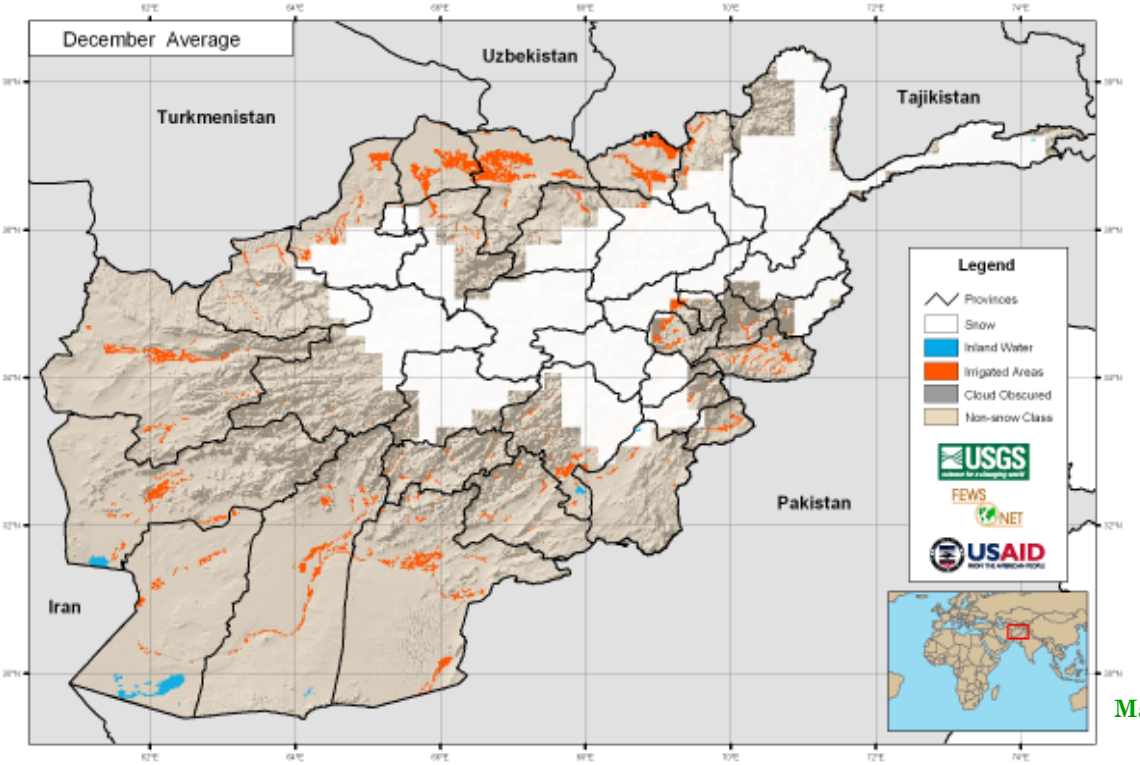
Map 9

Comparison of snow extent for the period (19 – 26) December 2007 with the same period in 2006 (maps 8 - 9) shows small decrease of snow extent in snow coverage areas during the month of December 2007 over the same period in 2006.

However during the month of December no significant change occurred in snow extent compared to the same month in 2006 but due to lake of snowfall in October and November stressed sow resources and more snowfall is needed to cover the snow resources.



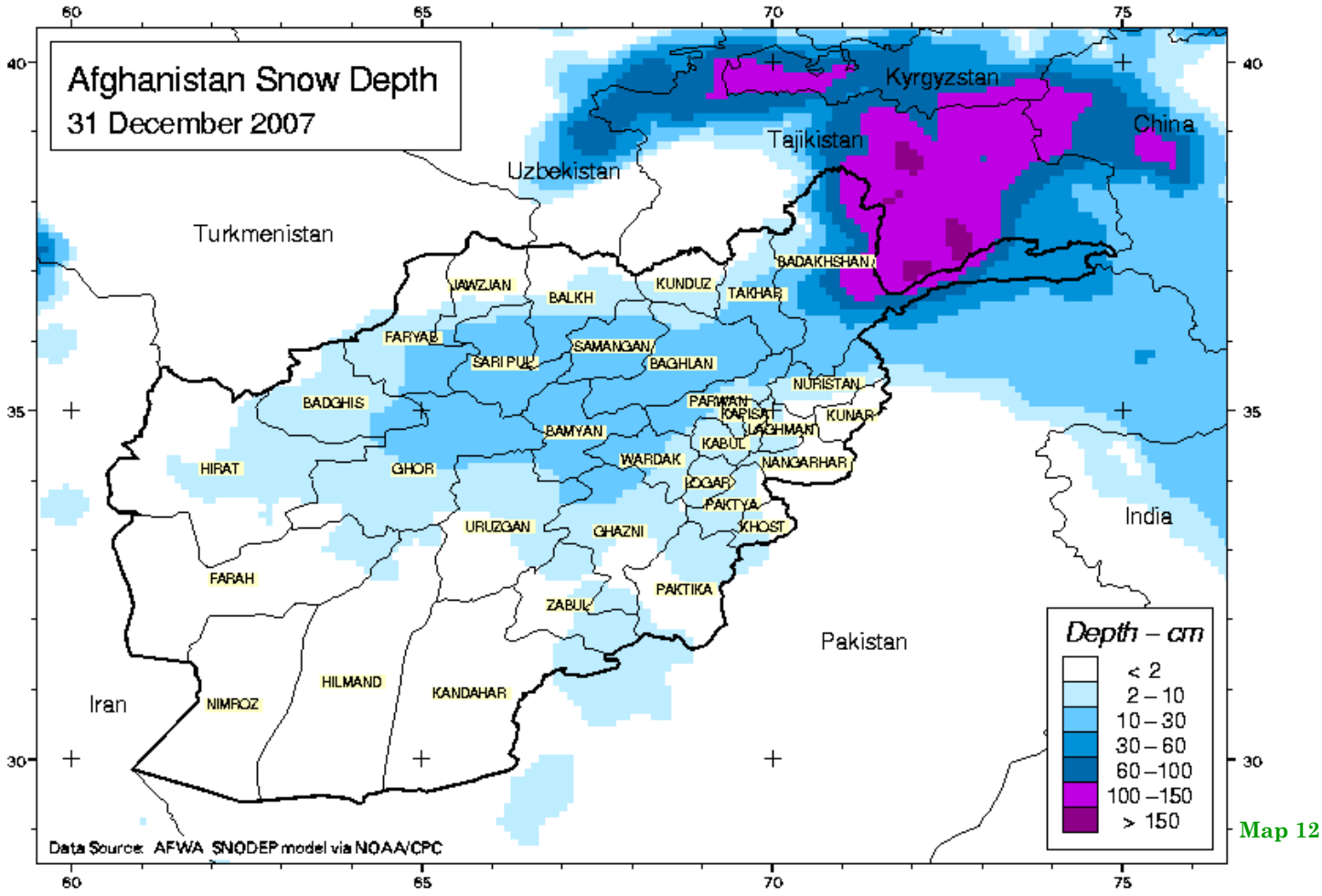
Map 10



Map 11

Comparison of snow extent for the month of December 2007 with the same month of long term average (maps 10 - 11) shows an increase of snow extent Particularly in the Northern mountainous areas, Northwestern regions and Western mountainous areas.

Afghanistan Snow Depth for the month of December 2007



Map 12

Map (12) shows the snow depth in different regions for the month of December 2007, as figure shows the snow depth is from 100 cm up to 150 cm recorded for the remaining region of the country. In some parts of the Northeastern region and from 10 cm up to 30 cm for Central Highlands and neighboring areas.

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